REMARKS

The Office Action dated January 15, 2003, has been received and carefully noted. The following remarks, are submitted as a full and complete response thereto.

No new matter has been added. Claims 1-12 are respectfully submitted for consideration.

Claim 9 was rejected under 35 U.S.C. §102(e) as being anticipated by Imatomi et al. (U.S. Patent No. 6,321,940 B1, "Imatomi"). The Applicant traverses the rejection and respectfully submits that claim 9 recites features that are not disclosed nor suggested by Imatomi. Claims 10 –12 depend from claim 9.

Claim 9 recites a method for controlling an injection molding machine in order to control the movement of a molten resin in a heating cylinder of the injection molding machine. The injection molding machine includes a screw arranged within the heating cylinder to be rotatable and to be linearly movable and having a flight of a pitch P. The molten resin is moved in a forward feeding direction during a plasticization process and an injecting process. The method comprises the step of linearly moving the screw backwards relative to the forward feeding direction of the molten resin and simultaneously rotating the screw in the forward feeding direction, after completion of the plasticization process or the injecting process.

As a result of the claimed invention, the movement of molten resin in a heating cylinder of an injection molding machine can be controlled. Thereby, the density distribution of the resin in the heating cylinder, particularly at the nose of the screw, can be sufficiently controlled so that variations in the weight of the molded products can be

reduced. The Applicant respectfully submits that Imatomi fails to disclose or suggest the claimed features of the invention, and therefore, fails to provide the critical and non-obvious advantages that are provided by the invention.

Imatomi discloses an injection apparatus and a method of controlling the same. Imatomi discloses a heating cylinder 11 as part of an injection molding machine which also includes a screw 12 arranged within the heating cylinder 11 that can be rotated and reciprocated and which serves as an injection member. This screw 12 has a flight portion 21 and a screw head 27 which is disposed at the front end of the flight portion 21. When the screw 12 is rotated in a forward direction during a metering step, pellets of resin are supplied from the hopper 16 to the resin supply section P1. The molten resin is thus caused to advance along a groove 24 on the screw body. As a result, the screw 12 retracts and the molten resin is accumulated on the front side of the screw head 27. When the screw 12 is advanced during an injection step, the resin accumulated in front of the screw head 27 is injected from the injection nozzle 13 and charged into a cavity of a mold unit.

With respect to claim 9, the Applicant respectfully submits that Imatomi fails to disclose the claimed features of the invention. Claim 9 recites, in part, the step of linearly moving the screw backwards relative to the forward feeding direction of the molten resin and simultaneously rotating the screw in the forward feeding direction, after completion of the plasticization process or the injection process. In contrast, Imatomi discloses that during a metering step, the rotation of the screw in the forward direction results in the screw retracting. However, the metering step in Imatomi does not occur after completion

of the injection step. The metering step in Imatomi occurs before the injection step. See Column 4, lines 36-42 of Imatomi. As such, Imatomi fails to disclose linearly moving the screw backwards and simultaneously rotating the screw in the forward feeding direction after completion of the plasticization process or injecting process, as Imatomi discloses these steps occurring during the metering step which is before the injection step. Accordingly, Imatomi fails to disclose each and every feature of the invention as recited in claim 9.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. § 102. In addition, the claim is anticipated only if each and every element as set forth in the claim itself is either expressly or inherently described in a single prior art reference. As discussed above, the Applicant respectfully submits that Imatomi fails to disclose or suggest linearly moving the screw backwards relative to the forward feeding direction of the molten resin and simultaneously rotating the screw in the forward feeding direction, after completion of the plasticization process or the injection process. Accordingly, Imatomi does not anticipate claim 1, nor is claim 1 obvious in view of Imatomi.

Claims 1-8 and 10-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shimizu et al. (U.S. Patent No. 4,879,077, "Shimizu"), in view of Imatomi. The Applicant respectfully submits that Imatomi is not a proper reference to apply in a 103(a) rejection against claims 1-8 and 10-12.

Under the rules of U.S. patent practice, subject matter that was prior art under 35 U.S.C. §102(e) and used in the rejection under 35 U.S.C. §103, can be disqualified if the

subject matter of the reference and claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. This rule applies to all applications filed after November 29, 1999. The filing date of the present application is November 14, 2001. In this case, Imatomi would constitute prior art against this application under 35 U.S.C. §102(e). However, the Applicant respectfully submits that the present application, U.S. Patent Application Serial No. 09/987,345, and U.S. Patent No. 6,321,940 B1 to Imatomi et al. were, at the time the invention of U.S. Patent Application Serial No. 09/987,345 was made, commonly owned by Sumitomo Heavy Industries, Ltd. of Tokyo, Japan. Therefore, the Applicant submits that Imatomi is disqualified as prior art under 35 U.S.C.§103 and respectfully request withdrawal of the rejection of claims 1-8 and 10-12 in view of the combination of Imatomi and Shimizu.

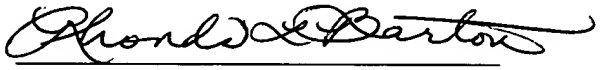
Claims 1-12 are pending. As discussed above with respect to claim 9, Imatomi fails to disclose linearly moving the screw backwards relative to the forward feeding direction of the molten resin and simultaneously rotating the screw in the forward feeding direction, after completion of the plasticization process or the injection process. Also, as discussed above, the Imatomi is not a proper reference to apply in a 35 U.S.C. §103 rejection against claims 1-8 and 10-12 of the present application. Accordingly, the Applicant respectfully requests allowance of claims 1-12 and the prompt issuance of a Notice of Allowability.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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